

Date: Tue, 20 Jul 93 12:30:05 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #880
To: Info-Hams

Info-Hams Digest Tue, 20 Jul 93 Volume 93 : Issue 880

Today's Topics:

 2,tr/2watt range...
 ABC Perspective on Amateur Radio
 Daily Solar Geophysical Data Broadcast for 18 July
 Dipole antenna construction ?
 Handi-Finder anyone build?
 How does an American sign in Canada?
 IC-730 RF Problem
 IC-735 AGC pumping
 Radio Shack
 Super Morse problem in Windows
 TNC <-> DJ-580 interfacing
 TS-50, type-acceptance
 TS50 Illegal!

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 20 Jul 93 15:21:25 GMT
From: gatech!howland.reston.ans.net!newsserver.jvnc.net!newsserver.egr.uri.edu!
orca!swamik@RUTGERS.EDU
Subject: 2,tr/2watt range...
To: info-hams@ucsd.edu

>>Roughly speaking, what's the effective transmit range
>>of those little Handheld Transceivers (2 Watt/ 2 Meter)
>>in miles (under optimal conditions?)

>During Field Day, I worked my Realistic HTX-202 at 3 watts and a homemade 1/4
>wave ground plane antenna. 2m really opened up for me for a while and I made
>a simplex contact of 25+ miles! (yes, my call is in the mail. I was using
>the Novice Shack Call. Please no flames. Thankyou)

25 miles, not bad for a gnd plane. But I wud not recommend a gnd plane.
I had one a while ago, but I trashed it! A J-Pole is A LOT (*LOT*)
better!!

Russ: What do u mean by optimal conditions.
2 watts will probably allow 2-3 miles Line of sight with a rubber duck.
But if u had a 11 element yagi up 100 feet (13 db gain) when the band was open.
u cud have a QSO 100+ miles away!!

73s de KB1AMB/AA

Date: Mon, 19 Jul 1993 15:01:45 GMT
From: psinntp!witch!ame!psl@uunet.uu.net
Subject: ABC Perspective on Amateur Radio
To: info-hams@ucsd.edu

Our local ABC Radio Network affilliate, WBAP, ran a program called
Perspective by Hugh Downs last night at 11 pm. The first 15
minutes of the program were devoted to amateur radio. It was a
very good commentary on ham radio. If you get a chance, you might
contact ABC News in New York to get a tape for local rebroadcast
and for club meetings. I don't know whether they will supply it,
but I am going to try.

Write to:
Perspective
c/o Jim Farley
ABC News
125 Westend Ave.
NY, NY 10023

73,
Pete WB0FEW

Date: 20 Jul 93 15:45:51 GMT
From: news-mail-gateway@ucsd.edu
Subject: Daily Solar Geophysical Data Broadcast for 18 July
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 199, 07/18/93
 10.7 FLUX=100 90-AVG=109 SSN=118 BKI=0021 2121 BAI=003
 BGND-XRAY=B1.4 FLU1=1.6E+06 FLU10=1.4E+04 PKI=1122 2222 PAI=005
 BOU-DEV=004,002,012,006,010,008,010,008 DEV-AVG=007 NT SWF=00:000
 XRAY-MAX= B5.8 @ 1852UT XRAY-MIN= B1.1 @ 2344UT XRAY-AVG= B1.6
 NEUTN-MAX= +003% @ 2150UT NEUTN-MIN= -001% @ 1530UT NEUTN-AVG= +0.6%
 PCA-MAX= +0.4DB @ 1555UT PCA-MIN= -0.6DB @ 1650UT PCA-AVG= +0.0DB
 BOUTF-MAX=55382NT @ 1413UT BOUTF-MIN=55344NT @ 1726UT BOUTF-AVG=55366NT
 GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+092,+000,+000
 GOES6-MAX=P:+149NT@ 1529UT GOES6-MIN=N:-058NT@ 2133UT G6-AVG=+115,-017,-040
 FLUXFCST=STD:125,115,110;SESC:125,115,110 BAI/PAI-FCST=005,015,020/010,015,025
 KFCST=1122 1111 1122 1111 27DAY-AP=004,006 27DAY-KP=1011 1222 1011 1233
 WARNINGS=
 ALERTS=
 !!END-DATA!!

NOTE: The Effective Sunspot Number for 17 JUL 93 was 71.0.
 The Full Kp Indices for 17 JUL 93 are: 1o 1- 0+ 1o 1o 2- 2- 2o

 Date: 20 Jul 93 13:51:01 GMT
 From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu
 Subject: Dipole antenna construction ?
 To: info-hams@ucsd.edu

In article <1993Jul16.000354.4846@uoft02.utoledo.edu> mohan@tulip.es.utoledo.edu
 writes:

>Hello,
 >
 >I am waiting for the license and wanted to make an antenna for HF operation.
 >
 >The following have been my basic references:
 >1. Antenna Here is a Dipole - James W. Healy NJ2L - QST June 1991.
 >2. Feeding Dipole Antennas - James W. Healy NJ2L - QST July 1991.
 >3. Connecotrs for (Almost) All Ocassions - Part 2. - David Newkirk WJ1Z
 > QST May 1991.
 >
 >The following points are not clear to me.
 >
 >If I want to construct a center-fed dipole for the 7.1 Mhz band,
 >the dimension for the dipole is given as 65ft, 11in.
 >Now, is this the distance between the holes of the insulators at the
 >support ends (including the length of the middle insulator/spacer), or is it
 >just the length of the wire not including the middle spacer.

Don't take this antenna length as gospel, make the antenna a couple

of feet too long according to the formulas, and trim to resonance.
Near field effects will cause your real antenna to vary from the
book antenna.

>And if I use a TS-520S transceiver and a dipole antenna made as in reference 1,
>the transmitter and the antenna will be matched without me having to use
>antenna tuners, and what about the SWR ?

If the antenna is matched, then by definition the SWR will be 1:1.
This won't happen in the real world, but you should easily be able to
trim the antenna to a SWR of 1.2:1 or even better at one frequency, and
expect the SWR to remain below 2:1 over the entire band. The 520 will
have no trouble loading into that.

We could swat gnats all day about *perfect* antennas, but the tunable
PI network in the 520 won't care as long as the antenna is roughly
the right length. This is one of those cases where you can measure
with a micrometer and cut with an axe. Pay more attention to getting
the antenna as high, and as in the clear, as possible.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 20 Jul 93 13:41:11 GMT
From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu
Subject: Handi-Finder anyone build?
To: info-hams@ucsd.edu

In article <2255eeINNshv@mojo.eng.umd.edu> tedwards@eng.umd.edu (Thomas Grant
Edwards) writes:

>I am curious what kind of results people have had with the
>"handi-finder" from QST a couple of months ago. I have mine
>basically working, but I haven't been able to do a real
>fox-hunt style test on it yet.
>

>I wonder if the bow tie arrangement could be changed to
>increase the amplitude of the apparent audio signal from
>the oscillator, and to increase the signal received by the
>antenna, because weak signals don't appear to be easily
>DF'ed using the system.

Thomas, I built a virtually identical unit a couple of years ago

for a hunt. I tried several different antenna designs, but the bowtie was about as good as any, and handier to maneuver during the hunt. Using two vertical dipoles spaced slightly less than half a wavelength apart gave the sharpest null, but that was *unhandy*, and the null was really too sharp and easy to miss on a short transmission by the fox.

You're right that it doesn't work as well on weak signals. I used a beam for initial bearings and switched to the handi-finder as I got closer. The fellow who won used a HT with rubber duck that he shielded in various ways, a pure signal strength system. The hunt area was subject to high levels of multipath so the handi-finder gave many false bearings. A more experienced hunter might have done better with it than I did, but I still had fun trying. The key to using the device well, as with most T hunt equipment, is lots of practice. Go out and track down your neighbor hams, local repeaters, and public service agency repeaters in advance of the hunt. I've chased the National Weather transmitter several times from several different starting locations. It's been instructive to see how terrain confuses apparent signal direction.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: Tue, 20 Jul 1993 17:01:43 GMT

From: usc!howland.reston.ans.net!ux1.cso.uiuc.edu!newsrelay.iastate.edu!
news.iastate.edu!wjturner@network.ucsd.edu

Subject: How does an American sign in Canada?

To: info-hams@ucsd.edu

In article <jfhCAG2E7.Ils@netcom.com> jfh@netcom.com (Jack Hamilton) writes:

>I'm pretty sure that no country *requires* you to broadcast on a particular
>frequency, since there's no law which says you have to broadcast at all.
>

Did you just say what I think you did? Did you say "broadcast"? Amateurs can't broadcast AT ALL!! We're only supposed to do 2-way communication.

: -)

--

Will Turner, NORDV -----
wjturner@iastate.edu | "Are you going to have any professionalism, |
twp77@isuvax.iastate.edu | or am I going to have to beat it into you?" |
TURNERW@vaxld.ameslab.gov -----

Date: 20 Jul 93 13:57:59 GMT
From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu
Subject: IC-730 RF Problem
To: info-hams@ucsd.edu

In article <225ghj\$11p@cville-srv.wam.umd.edu> thieule@wam.umd.edu (SKYWALKER) writes:

>i am currently using an Icom 730 with a Pyramid Power Supply (12-15v @ 25A)
>and feeding the rig with a random wire thrown out of my bedroom window.
>The problem that I am having is that on 40m and 20m, i cannot get the rig
>to put out 100w. The tuner has a built in SWR/Power meter and I can get the
>SWR below 2:1, but I can't seem to get more than 50w output. Sometimes,however
>I have been able to crank out all of the 100w. To make matters worse, under
>some circumstances, I can get a perfect 1:1 match with about 10w output, but
>when i turn up the juice, the rig immediately turns off when i key the
>transmitter. I've noticed that the power supply shuts off when i hold down
>the key.

>

>so now for the question.....what's going on???????!?!?!?!?!?

>

>oh, yeah, one more important point....I am 30 ft off the ground and the only
>ground I use is the DC wall ground and a counterpoise as an artificial RF
>ground.

>

>any suggestion on how to cure this?!?! I would like to run all of 100w becaus
>those testers can get quite impatient with my S1 signal.

Well I think you already suspect what the problem is. You're getting RF in the shack that's getting into the power supply and screwing with the regulation, sometimes to the point of shutdown.

An end fed random wire is susceptible to this problem. A counterpoise can help, as can a solid, short RF ground connection to Earth. But the latter is slightly more difficult at your location. You might try a "tuned" ground lead as an RF shunt, and you should take steps to suppress RF ingress to the power supply with the usual assortment of chokes, toroids, and bypass capacitors. Ultimately, you may have to go to a balanced antenna, such as a dipole, to lick this problem completely.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 20 Jul 93 13:16:31
From: sdd.hp.com!nigel.msen.com!caen!zip.eecs.umich.edu!zip.eecs.umich.edu!
hideg@network.ucsd.edu
Subject: IC-735 AGC pumping
To: info-hams@ucsd.edu

Hello.

I've noticed an interesting problem with my IC-735. On cw mode, if there is a co-channel station that is stronger than the station I'm trying to receive, the AGC responds to the stronger station, thereby modulating the apparent level of the station I'm trying to receive.

I've heard that this phenomenon is sometimes called "AGC pumping". Is there a way to cure it with this radio? I'm currently using a 500Hz cw narrow filter. ICOM has a 250Hz filter available. Would that help? Are there other sources for filters for this radio? Is my radio simply not selective enough (and I'm out of luck)?

I don't know if this is a problem in any other modes. I just noticed this on cw on Field Day.

Any advice would be appreciated.

73

-Steve Hideg N8HSC
hideg@erim.org

Date: Tue, 20 Jul 1993 16:01:39 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!
newsserver.jvnc.net!newsserver.egr.uri.edu!orca!swamik@network.ucsd.edu
Subject: Radio Shack
To: info-hams@ucsd.edu

I love reading the articles abt RipOff Shack!!

I called the other day to ask if RS had a certain transistor. The salesdroid said "Yes, it can be found in our cross reference.."

I said: "Could u please look up (whatever it was) for me..."

salesdroid: "Oh, I, uh, I have a line of customer waiting...but
u can look it up if u want..."

I said: "I am sitting at home, abt 10 miles from ur store, hence
I cannot look it up from here, maybe u missed that..."

salesdroid: "Well, sir, like I said I have a bunch of customers..."

I said: "Yeah...Right.." and Hung Up!!!

Perhaps that was rude, but this is not the first instance a RS saledroif has been to lazy to help me over the phone. I once asked if they sold gell cell batteries and the idiot said "Jello, we don't sell Jello...".

I have a whole bunch of stories like this...

But no need to tell all of them, u get the picture.

73s

Swami Kumaresan

swamik@orca.ele.uri.edu

swamik@morio.e-technik.uni-kl.de

KB1AMB@KA1AZ.RI (Ham Radio BBS)

kb1amb@kb1amb.ampr.org AMPRNet (Amateur Packet Radio TCP/IP Network)

KB1AMB/AA Advanced Class Amateur Radio Operator

I Monitor 147.165/.765 Repeater

& 20 meter band (SSB & CW)

73s

Date: 20 Jul 93 12:17:50 EST

From: titan.ksc.nasa.gov!k4dii.ksc.nasa.gov!user@ames.arpa

Subject: Super Morse problem in Windows

To: info-hams@ucsd.edu

In article <22d93n\$khj@news.bu.edu>, david@bu.edu (David Gagnon) wrote:

> I am having a bit of difficulty with the Super Morse program. It works fine
> when I run it directly from DOS, but if I try and call it from within
> Windows or in a DOS shell under Windows, I end up with the dits sounding
> like clicks instead of tones, and the dahs sounding like proper tones.

David-

I'm not familiar with the problem you're having, but am aware that Super Morse was upgraded to version 4.01, or possibly further by now. If you have an older version, an upgrade might fix the problem.

73, Fred, K4DII

Date: 20 Jul 93 16:25:03 GMT
From: news-mail-gateway@ucsd.edu
Subject: TNC <-> DJ-580 interfacing
To: info-hams@ucsd.edu

Thanks to all who replied!!

I wound up using a .01mF Cap and a 1.2K Ohm Resistor. Also I discovered that a .1mF Cap and a Resistor up to about 5K Ohms will work properly with the DJ-580. At first since it was a 3 conductor plug I was wiring the PTT to the sleeve and the Mic Audio to the tip. I just assumed that I needed to use all three connections. Dummy me!! I looked at the wiring digram in the TNC manual and it had both connections made to the tip. RTFM right!! Sure enough that was all I needed.

Learning is what this hobby is all about anyway?!

thanks and 73s - Warren

--
Warren E. Lewis
Graphics Division
SAS Institute Inc.
Cary, NC
saswel@unx.sas.com
(919) 677-8001 x6542
PP-ASEL
KD4YRN DOD#0021

Date: 20 Jul 93 15:17:18 GMT
From: ogicse!uwm.edu!lll-winken.llnl.gov!nirvana.llnl.gov!user@network.ucsd.edu
Subject: TS-50, type-acceptance
To: info-hams@ucsd.edu

In article <1993Jul19.184808.107207@locus.com>, dana@lando.la.locus.com
(Dana H. Myers) wrote:

> In other words, I walk into Mike and Tony's Ham Store and ask for an
> HT to use on the 154.600 Mhz itinerant frequency. If they say, "Here,
> use this modified amateur Icom, it'll work", then they've intentionally

> sold you non-type accepted gear where a type accepted radio is required.

Its more likley that you walk into Tony and Mikes Ham Store/Truck stop and
buy a really neat CB that cranks out a 100 watts!
Does that come with an echo mike? hehe

Dave

Dave Parker
davep@llnl.gov
KD6RRS

Date: 20 Jul 1993 16:31:20 GMT
From: europa.eng.gtefsd.com!howland.reston.ans.net!noc.near.net!news.bbn.com!
bbn.com!levin@uunet.uu.net
Subject: TS50 Illegal!
To: info-hams@ucsd.edu

system@garlic.sbs.com (Tony Pelliccio) writes:

|levine@mc.com (Bob Levine) writes:

|> The lead article in this week's W5YI Report is the story of several
|> Ham Radio retailers (like HRO) who were fined \$7000 for selling the TS50
|> because it can transmit out of the Ham bands right out of the box
|> and it isn't type accepted for those frequencies. The article also
|> specifically mentioned the FT530 HT which can also transmit out of
|> the Ham bands right out of the box (140.000 - 150.000)
|All the Yaesu VHF/UHF radios I've ever seen transmit out of band
|(140-150) so you're telling me my FT-5100 is illegal? I think not.

Curiouser and curiouser. My HF rig also transmits outside the ham
bands; the Yaesu FT990 happily transmits the entire 500khz surrounding
each ham band (I believe, I haven't actually transmitted there, of
course :-). The only special protection, apparently added as an
afterthought or as an extra item, is that on the 160m band, below 1800
the radio _acts_ as if it's transmitting, but doesn't. (There is a
special note in the manual that if you try to activate the built-in
tuner below 1800 it will hang till you manually turn the tuner off.)
There is no apparent protection from transmitting on, say, 7.300 to
7.500, 10.000 to 10.010 or 14.350 to 14.500.

/J

=

Nets: levin@bbn.com | "How does a mouse let me move the cursor anywhere
pots: (617)873-3463 | I want?" "What are address busses?" "How do
KD10N (@KB4N.NH.USA) | icons work?" --Time-Life Books

Date: Tue, 20 Jul 93 16:10:19 GMT
From: walter!porthos!dancer!whs70@uunet.uu.net
To: info-hams@ucsd.edu

References <1993Jul19.225650.22555@cyphyn.UUCP>,
<1993Jul20.034101.187@porthos.cc.bellcore.com>, <17921@news.duke.edu>ortho
Subject : Type Acceptance impacts all NEW equipment, was Re: TS50 Illegal!

In article <17921@news.duke.edu> jbs@ee.ee.duke.edu (Joe B. Simpson) writes:
>In article <1993Jul20.034101.187@porthos.cc.bellcore.com>
whs70@dancer.cc.bellcore.com (sohl,william h) writes:

>
>>> 1st...sence when has the FCC had to 'type accept' a Ham rig?
>
>>The FCC does "type acceptance" on "commercial" ham rigs.
>>I don't know when that may have started, but it is the
>>normal process by which new equipment is first checked
>>out before being available.
>
>I don't think the certification that equipment is in compliance with the
>regulations concerning spectral purity is the same thing as "type acceptance."
>In my reading of the rules (a fairly recent copy, though not a 1993 copy) I
>didn't see anything at all indicating that any gear other than external
>RF amps operating under 144MHz had to be type accepted to be marketed
>commercially..
> -joe

The FCC does "type acceptance" on all electronic equipment relative to certain criteria. All commercial radio receivers, TVs, scanners, VCRs, computers, etc have to meet various "type acceptance" criteria relative to emissions, etc. Look on, under or somewhere on almost any piece of new electronic equipment and you'll find a reference to the specific type acceptance criteria to which that equipment has been validated/type accepted.

For example, my desk telephone has a sticker indicating the phone complies with part 40 of the FCC rules. My video monitor "complies with Part 15 of FCC rules."

Again, these "rules" for the various equipment types are applicable to equipment manufactured and sold on a commercial basis. The "type acceptance" rules do not apply to home made equipment, nor are they applicable on a retroactive basis to equipment that was made before the current criteria was established.

Standard Disclaimer- Any opinions, etc. are mine and NOT my employer's.

Bill Sohl (K2UNK) BELLCORE (Bell Communications Research, Inc.)
Morristown, NJ email via UUCP bcr!cc!whs70
201-829-2879 Weekdays email via Internet whs70@cc.bellcore.com

Date: Tue, 20 Jul 1993 16:52:33 GMT
From: news.service.uci.edu!ttinews!calvin.tti.com!cole@network.ucsd.edu
To: info-hams@ucsd.edu

References <19JUL199320554768@siva.bris.ac.uk>, <22f15fINNbea@topaz.bds.com>,
<20JUL199310024637@siva.bris.ac.uk>
Subject : Re: teletypes

In article <20JUL199310024637@siva.bris.ac.uk> ard@siva.bris.ac.uk (PDP11
Hacker) writes:

>From: ard@siva.bris.ac.uk (PDP11 Hacker)

>Subject: Re: teletypes

>Date: Tue, 20 Jul 1993 09:02:00 GMT

>In article <22f15fINNbea@topaz.bds.com>, ron@topaz.bds.com (Ron Natalie)
writes...

>>> 35,37 - basically more rugged/or with lower case ASCII machines. I have no
>>> info on these.

>>

>>The 35 is a faster ASCII terminal that takes pinfeed paper and will do
>>form feeds (This I found amusing back in my early computing days).

>

>There was a sprocket-feed 33 with a formfeed mechanism, but I've never seen
>one. It's shown in the parts book, and I have some spares for it, so I guess it
>existed.

Having probably spent 2000 hours in a 10' by 15' room at the University
of Utah with five Model 35 machines, I can confirm that they existed.
It probably explains why my wife wants me to get my hearing checked.

Randy Cole
KN6W

Date: Tue, 20 Jul 1993 17:44:42 GMT
From: haven.umd.edu!darwin.sura.net!newsserver.jvnc.net!louie!huey.udel.edu!
hanavin@ames.arpa
To: info-hams@ucsd.edu

References <Pine.3.07.9307191647.A12858-b1000000@uafhp.uark.edu>,

<jfhCAG2E7.Ils@netcom.com>, <CAH3Av.2Fv@news.iastate.edu>
Subject : Re: How does an American sign in Canada?

In article <CAH3Av.2Fv@news.iastate.edu> wjturner@iastate.edu (William J Turner) writes:

>In article <jfhCAG2E7.Ils@netcom.com> jfh@netcom.com (Jack Hamilton) writes:

>

>>I'm pretty sure that no country *requires* you to broadcast on a particular
>>frequency, since there's no law which says you have to broadcast at all.

>>

>

>Did you just say what I think you did? Did you say "broadcast"? Amateurs
>can't broadcast AT ALL!! We're only supposed to do 2-way communication.

>

>:-)

>

>

>

>--

>Will Turner, NORDV	-----
>wjturner@iastate.edu	"Are you going to have any professionalism,
>twp77@isuvax.iastate.edu	or am I going to have to beat it into you?"
>TURNERW@vaxld.ameslab.gov	-----

WRONG! W1AW does it every evening, its perfectly legal.

Chuck (WB3FJJ)

End of Info-Hams Digest V93 #880
